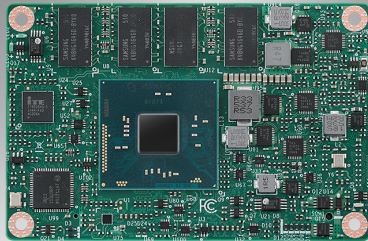


SOM-7568

Intel® Pentium®/Celeron® N3000 Series and Atom Series COM Express Mini Module Type 10

NEW



Windows Embedded

iManager WISE-PaaS/RMM CE FCC

Features

- Intel® Pentium®/Celeron® N3000 Series and Atom™ SoC
- Dual Channel DDR3L 1600 non-ECC onboard memory up to 8 GB
- Support HEVC/H.265, H.264 MPEG2 HW Decode
- Support rich display interface: LVDS/eDP, HDMI/DisplayPort/DVI
- iManager WISE-PaaS/RMM, and Embedded Software APIs

Software APIs:



Watchdog



I2C



SMBus



H/W Monitor



GPIO

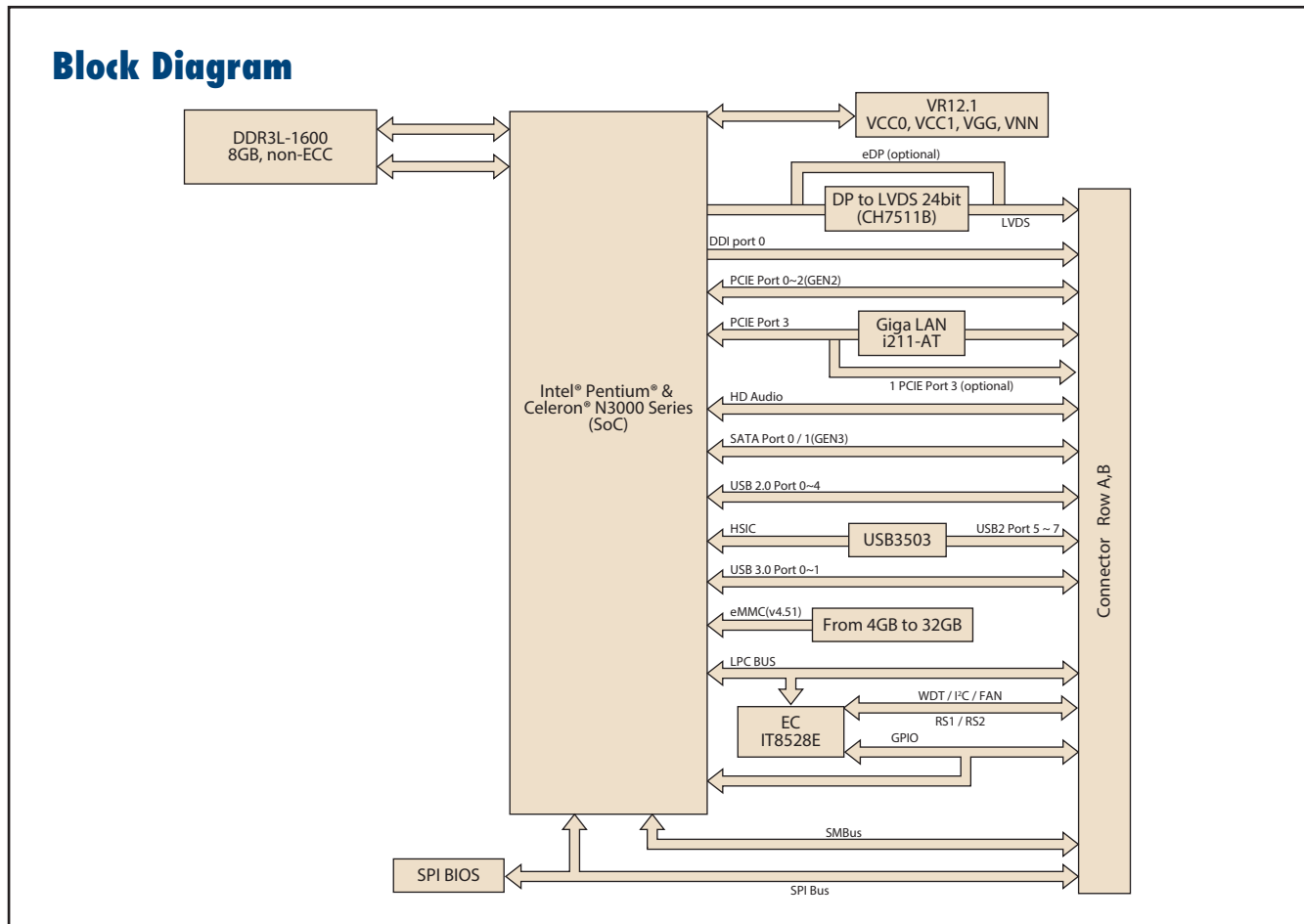


Brightness Control

Specifications

Form Factor	Form Factor	COM Express Mini Module Compatible					
	Pin-out Type	COM Express R2.1 Type 10 Pin-out Compatible					
Processor System	SoC	Pentium® N3700	Pentium® N3710	Celeron® N3160	Celeron® 3060	Celeron® N3010	Atom™ X5-E8000
	Base Frequency	1.6 GHz	1.6 GHz	1.6 GHz	1.6 GHz	1.04 GHz	1.04 GHz
	Burst Frequency	2.4 GHz	2.56 GHz	2.24 GHz	2.48 GHz	2.24 GHz	2 GHz
	Core/Thread	4/4	4/4	4/4	2/2	2/2	4/4
	LLC	2 MB	2 MB	2 MB	2 MB	2 MB	2 MB
	CPU TDP	6W	6W	6W	6W	4W	5W
	BIOS	AMI UEFI BIOS @ 64Mb					
Memory	Technology	Onboard DDR3L-1600					
	ECC Support	N/A					
	Channel	Dual-Channel					
	Max. Capacity	8GB					
Graphics	Controller	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics
	Base Freq.	400 MHz	400 MHz	320 MHz	320 MHz	320 MHz	320 MHz
	Graphics Burst Frequency	700 MHz	700 MHz	640 MHz	600 MHz	600 MHz	320 MHz
	3D/HW Acceleration	DX 11.1, OpenGL 4.2, OpenGL ES 3.0, OpenCL 1.2, HW Decode: HEVC (H.265) @ L5, H.264 @ 5.2, MPEG2, MVC, VC-1, WMV9, JPEG/MJPEG, VP8 HW Encode: H.264 @ 5.1, MVC, JPEG/MJPEG					
Display	LCD	LVDS: Single channel 18/24-bit, up to 1366 x 768 Optional eDP: Up to 3840 x 2160 @ 30Hz or 2560 x 1600 @ 60Hz; eDP Version 1.4					
	DDI	HDMI & DisplayPort: Up to 3840 x 2160 @ 30Hz or 2560 x 1600 @ 60Hz, 24 bpp; HDMI Version 1.4b; DisplayPort Version 1.1a					
	Multiple Display	LVDS, HDMI/DisplayPort Optional: eDP, HDMI/DisplayPort					
Expansion	PCI Express x1	3 PCIe x1; (Optional 1 PCIe x4 without LAN)					
	Audio Interface	HD Audio					
	LPC	Yes					
Serial Bus	SMBus	Yes					
	I2C Bus	Yes					
Ethernet	Controller	Intel® i211AT					
	Speed	10/100/1000 Mbps					
Onboard Storage	eMMC/SATA SSD	eMMC4.51, 4GB to 32GB					
I/O	SATA	2 Ports, Support Gen3 (6Gb/s) and Gen2 (3 Gb/s) or Gen 1(1.5 Gb/s)					
	USB3.0	2 Ports					
	USB2.0	8 Ports					
	SPI Bus	Yes					
	SDIO/SDXC	Support 4 GPI and 4 GPO					
	GPIO	8-bit GPIO					
	Watchdog	65536 level, 0 ~ 65535 sec					
	COM Port	2 Ports (2-Wire)					
	Express Card	2 Ports					
	Smart Fan	2 Ports; 1 Port on COM Module. Support 12V Fan, 1 Port on Carrier Board					
Power	Type	ATX: Vin, VSB, AT: Vin					
	Supply Voltage	Vin: 4.75 (5-5%) ~ 20V (19+5%), VSB: 5V±5%, RTC Battery: 2.0-3.3V					
	Power Consumption (Max.)	Max. 6.99Watt. (N3700)					
	Power Consumption (Idle)	Idle 2.64Watt. (N3700)					
Environment	Temperature	Operating: 0 ~ 60° C (32 ~ 140° F), with 0.7m/s air flow Storage: -40 ~ 85° C (-40 ~ 185° F)					
	Humidity	Operating: 40° C @ 95% relative humidity, non-condensing Storage: 60° C @ 95% relative humidity, non-condensing					
	Vibration Resistance	3.5 Grms					
Mechanical	Dimensions	84 x 55 mm (3.3" x 2.17")					

Block Diagram



Ordering Information

Part No.	SoC	CPU Stepping	Base / Burst Frequency	Core	LLC	CPU TDP	Onboard Memory	Onboard Flash	Thermal Solution	Operating Temperature
SOM-7568CMBC-S6A1E	Intel® Pentium® N3700	C	1.6GHz / 2.4GHz	4	2MB	6W	4GB	MLC 32GB	Passive	0 ~ 60° C
SOM-7568CMBC-S7A1E	Intel® Pentium® N3710	D	1.6GHz / 2.56GHz	4	2MB	6W	4GB	MLC 32GB	Passive	0 ~ 60° C
SOM-7568BMOC-S6A1E	Intel® Celeron® N3160	D	1.6GHz / 2.24GHz	4	2MB	6W	2GB	N/A	Passive	0 ~ 60° C
SOM-7568BMOC-S5A1E	Intel® Celeron® N3060	D	1.6GHz / 2.48GHz	2	2MB	6W	2GB	N/A	Passive	0 ~ 60° C
SOM-7568BMOC-S0A1E	Intel® Celeron® N3010	D	1.04GHz / 2.24GHz	2	2MB	4W	2GB	N/A	Passive	0 ~ 60° C
SOM-7568BMOC-S1A1E	Intel® Atom™ X5-E8000	D	1.04GHz / 2GHz	4	2MB	5W	2GB	N/A	Passive	0 ~ 60° C

Note: Intel C stepping CPU might be EOL after Intel D stepping CPU ready.

Packing List

Part No.	Description	Quantity
-	SOM-7568 CPU Module	1
1960072329N001	Heatspreader	1

Development Board

Part No.	Description
SOM-DB5800-U0A2E	COMe Devel. Board Type10 pint-out

Optional Accessories

Part No.	Description
1960056280N001	Semi-Heatsink 84L x 55W x 13.2H mm (0 ~ 60° C)
96LEDK-I057VG50NA1	5.7" LED PANEL 500N 640X480(G)
96LEDK-A084SV45NB2	8.4" LED PANEL 450N 800X600(G) G084SN05 V9
96LEDK-C150XG40NG1	15" LED PANEL 400N 1024X768(G) G150XGE-L04
96LEDK-A170SX35NF1	17" LED 350N 1280X1024(G) G170EG01 V1

Embedded OS

OS	Part No.	Description
WE8.1 IndustryPro	2070014373	img WE8.1 IndustryPro SOM-7568 X64 V1.0 EN
WES7P	2070014003	img WES7P SOM-7568 X64 V5.6.6 Eng